

DPS 4000

Druck CANbus Digital Output Pressure Transducers



Features

- Ranges from 5 psi to 1000 psi (350 mbar to 70 bar)
- High accuracy over wide temperature range
- Full CAN version 2.0 B
- CANopen protocol
- Input/output isolation
- Device self-checking and diagnostics

The DPS 4000 Series is a state of the art range of digital output pressure transducers featuring a CANbus serial communications interface. Fully temperature corrected pressure readings are output as a digital word in any one of 24 engineering units, requiring no user system set-up or calibration. The integral digital electronics enhance performance to levels unmatched by traditional analog transducers.

Communication software is based on the CANopen protocol. The DPS 4000 functionality offers the user access to last/next calibration date, calibration routines and serial number identification among others.

Capable of operation from a range of supply voltages (including batteries) the transducer is fully input/output isolated for complete system protection and user confidence. With ranges from 5 psi to 1000 psi (350 mbar to 70 bar) and 400% overpressure, it is ideal for many applications where optimum transducer performance is essential and customer specific requirements can be accommodated.



GE imagination at work

DPS 4000

Specifications

Pressure Measurement

Operating Pressure Ranges

Zero based ranges: 5 psi*, 10, 15, 30, 50, 100, 150, 300, 500 and 1000 psi (350 mbar, 700mbar, 1, 2, 3.5, 7, 10, 20, 35, 70 bar), absolute or gauge.

Bi-directional gauge and differential ranges available on request. Maximum differential pressure 500 psi (35 bar).

**5 psi gauge only*

Overpressure

The pressure range can be exceeded by the following with negligible effect on calibration:
Positive side: 4 x full scale (FS) (2000 psi maximum) (140 bar maximum)
Negative side: 2 x FS (150 psi maximum) (10 bar maximum).

Line Pressure

500 psi (35 bar) maximum (differential model only).

Positive Pressure Media

Fluids compatible with Stainless Steel 316 L and Hastelloy C276.

Excitation Voltage

7.5 to 30 VDC.

Output Configuration

CANopen digital data via CANbus interface. User configurable pressure reading <100Hz. (factory set to default value of 10Hz).

Software Protocol

In accordance with:

- DS301 V 4.01 (CANopen)
- DS404 V 1.0 (Analog input device profile)
- DSP 305 V 1.0 (Layer setting service)

Performance

Accuracy

0.2% reading down to 50% FS, then 0.1% FS to zero. Includes all errors over 50°F to 140°F (10°C to 60°C).

Long Term Stability

Typically less than 0.08% FS per annum.

Operating Temperature Range

-40°F to 175°F (-40°C to 80°C).

Insulation Resistance

Greater than 100 MΩ at 500 VDC

Mechanical Shock

1000 g, 1 mS half sine pulse in three mutually perpendicular axes will not affect performance.

Vibration

Response <0.05% FS/g at 30 g peak 10 Hz to 2 kHz, limited by 0.5 in (12 mm) double amplitude.

Safety

CE Marked
EMC emissions: EN 50081-1
EMC immunity: EN 61000-6-2

Physical

Weight

0.19 kg (7 oz) nominal.

Pressure Connection

Male:

- G1/8B (60° Int Cone)
- G1/4B (60° Int Cone or Flat End)
- 1/4 NPT
- 7/16 UNF to MS33656-4
- M14 x 1.5

Female:

- G1/4,
- 1/4 NPT
- Others available - refer to GE.

Electrical Connection

MIL-C-26482 six pin bayonet plug or six core shielded cable (3 ft. supplied as standard)

Alternatives available - refer to GE.

Options

- (A) Mating connector for bayonet plug
- (B) Negative calibration
- (C) Alternative engineering units
- (D) User instruction handbook

Calibration Standards

GE pressure transducers are calibrated against precision calibration equipment which is traceable to International Standards.

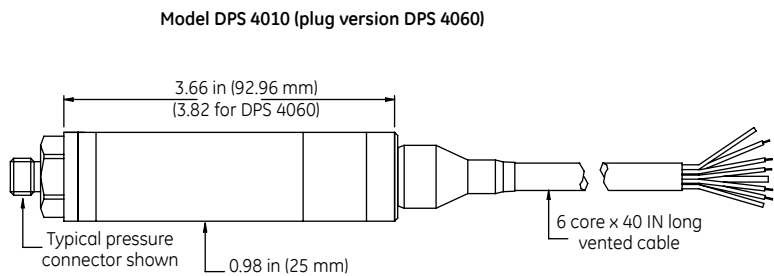
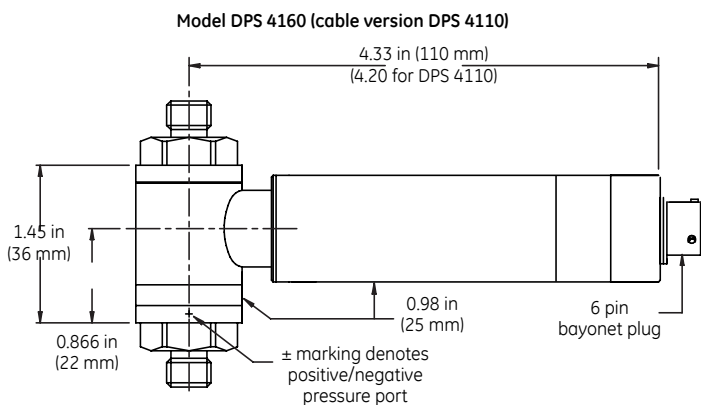
Installation Drawings

Ordering Information

(1) Select Model number

DPS	Basic Code	Type Number	Pressure Type	Electrical Connection
	40		Gauge or absolute	
	41		Differential	
		Code		
		10		Six core vented screened cable (3 ft)
		60		Six pin bayonet plug
		60		Typical example

- (2) Pressure range
- (3) Gauge, absolute or differential
- (4) Pressure connection
- (5) Options (if required)





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